



CLUSTER/ONE MODEL A™ VERSION 1.1 SYSTEM MANAGER'S REFERENCE CARD

CONTENTS

STARTUP	1
CONSOLE COMMANDS	2
PRIVILEGED COMMANDS	2
EMERGENCY PROCEDURES	4
UTILITIES	5
I/O AND DEVICE ERRORS	8

STARTUP:

FLOPPY DISK ONLY: Turn on the Nestar floppy disk unit (button in back) and insert the system floppy diskette, named MAIN (Version 1.1).

HARD DISK: Verify that power is on. (Switch is by power cord.) If you will be using a floppy also, turn it on at this time.

Turn on power at the file server Apple. The Apple will be booted under Pascal and initialized, and will automatically chain to the network file server program (NFS).

To prevent chaining to NFS (in order to run offline utility programs), press <esc> when prompted.

If no clock/calendar card is present, enter date in the format yymmdd <return>.

Startup is now complete. To power off, run HDISK.

© 1980, 1981 Nestar Systems, Incorporated
All Rights Reserved
April 1, 1981

Nestar Systems, Incorporated
2585 East Bayshore Road
Palo Alto, CA 94303
Pub. No. GX20 0102-0

CONSOLE COMMANDS

WARNING: The Network File server (NFS) does not respond to network commands while console commands are being entered or when the console display is stopped with ctrl-s.

ENTERING PASSWORDS: If a password has been specified using the PASSWORD command, you must type

<esc> password <return>

before EACH console command. The password will not appear on the screen. If the password sequence is entered incorrectly, press <esc> to enter it again. Until the correct sequence is entered, NFS will continue to process network requests.

ENTERING COMMANDS: Enter the password if required (see above). No prompt or cursor will appear. Type the first character; NFS will respond with the prompt

ENTER CMD?

which will appear on the first line of the screen, followed by the first character typed. Finish entering the command; follow it with <return>. The system will execute the command and will print any error code and message on the screen. All NFS commands can be used at the system console except:

BSAVE BLOAD BRUN OFF

PRIVILEGED COMMANDS:

(system console only)

CLEAR

- rewrites console display.
- resets TIM, INT, CHK, ADR, and LEN counts.

DISK CHANGE Uu

- enter before removing or inserting diskette.
- "u" is 1 for left floppy, 2 for right.
- allows safe removal and insertion of 8-inch floppies.

DISPLAY ON,OFF

- turns on or off display of system commands and messages at top of screen. Default is off.

PASSWORD [pw]

- sets password for console commands.
- to use, type PASSWORD and the desired password, and press <return>. Default is no password.

QUIT

- shuts down network file-server program; returns to Pascal command level; allows running offline utilities.

RESET (no <cr>)

- type RESET but don't press carriage return!
- suspends NFS so that <reset> button can be pressed safely.

SET DATE yymmdd

- sets system date when clock/calendar is not present or is invalid. For July 3, 1980 type: 800703.

SHOW ALL MOUNTS

- displays all current MOUNTS. Follow with CLEAR to rewrite screen.

SUPER cmd

- overrides file server passwords on Network files for current command only.
- may be used with \$nn command: \$nn SUPER cmd.

TRACE ON,OFF

- turns on or off NFS trace mode. Default is off.
- Trace records NFS commands in the TRACE file, if present.

\$nn cmd

- executes a command for network user station \$nn. No local cmd commands.
- May be used with SUPER: \$nn SUPER cmd

EMERGENCY PROCEDURES

RUN-TIME ERROR

- display will show:

EXEC ERROR #n
S#s, P#p, I#i
TYPE <SPACE> TO CONTINUE

- proper action:

- Record exact message displayed and transmit to Nestar.
- Restart the NFS program from the beginning. See STARTUP.

HARD DISK NOT READY

- Enter LIST /5 at file-server console to verify that hard disk is not ready.
- Type the word RESET but DO NOT press <return>. This freezes the file-server, so that it will not be in the middle of a file or network transaction.
- Press <reset> button. Apple will enter Apple Monitor.
- Type G <return> and file server will resume operation.

<RESET> HIT ACCIDENTALLY

- If other characters have already been entered from the console, the file-server cannot be in the middle of a file or network transaction. Therefore, it is safe to type G <return> which resumes operation.
- If <reset> is the first button pressed, the file-server may have been in the middle of a file or network transaction. Therefore, enter C600G <return> to reboot the system and restart the file-server from the beginning.

SYSTEM HALTED WITH "ENTER CMD?" AT TOP OF SCREEN

- the Network File Server is awaiting a keyboard command. Enter a command or press <return>.

UTILITIES:

HOW TO USE

OFFLINE utility programs can only be run on the Network File Server (NFS) Apple and may not be run while the Network File Server program is operating. ONLINE utilities are executed at user stations while the NFS is operating.

To execute utility programs, enter Pascal command level by bringing up system from scratch or entering console command QUIT when NFS is operating.

Type X and the name of the utility to be executed. Then supply additional information as requested.

FILTRAN

- offline utility that copies any NFS file or file hierarchy, including entire NFS volumes, from any NFS-supported medium to any other.
- to run, boot the file server, escape chaining to NFS by pressing <esc> , and X)ecute FILTRAN.

1. To copy a single NFS file to the same or a different disk unit, specify the full pathname for both SOURCE and TARGET NFS files.
2. To copy an entire diskette to another diskette or hard disk:
 - put the diskette to be copied from into the left unit (Unit 1)
 - specify /1 as source and /2, /5, or /6 as target
 - answer four prompts with "N":
 - ASK ABOUT EACH FILE (Y/N)?
 - ERASE DUPLICATES (Y/N)?
 - SKIP DUPLICATES (Y/N)?
 - UPDATE BACKUP DATES (Y/N)?

- the directory structure being copied is merged into the existing NFS directory structure; new directories and files will be added as needed.
- access rights and passwords are copied intact with each file.

FORMAT:

- offline utility that formats 8-inch floppy diskette; checks for disk errors.
- To run, boot the file server Apple, escape chaining to NFS by pressing **<esc>**, and X(ecute FORMAT).
- DO NOT format:
 - hard disks (units 5 and 6)
 - system floppy diskettes supplied by Nestar
 - flip-over diskettes (single-sided diskettes meant to be flipped manually)
- DO format all other new 8-inch floppies to be used with NFS.
- diskettes must be single-density, soft-sectored.
- diskettes may be either single-sided or dual-sided.
- Disk Errors:
 1. Check that write-protect notch is REMOVED (uncovered) on 8-inch diskette.
 2. Try again in the same and different drive.
 3. If only one drive gives errors, schedule it for service.
 4. If some diskettes can be formatted, but a particular one gives errors, replace that diskette.
- 5. **WARNING:** Disks with permanent errors cannot be used.

DISKCOPY

- copies one diskette or hard disk onto another diskette or hard disk of the same size.
- to run, boot the file server Apple, escape chaining to NFS by pressing **<esc>**, and X(ecute DISKCOPY).
- copies the FULL diskette or hard disk; use FILTRAN to copy selected files.
- DISKCOPY destroys existing information on target disk.
- target diskette must have been formatted by FORMAT program.
- target and source diskettes must both be single or double sided.
- target and source hard disks must both be 16.5 MB or 33 MB.
- DISKCOPY prompts for target root directory name. It may be old target name, source name, or a new name.
- to ABORT, press **<esc>** and **<return>** in succession whenever DISKCOPY requests a reply; or press **<esc>** during copying process. (**WARNING:** Target diskette will not be usable until it is reformatted by FORMAT program or until it is the target of a successfully completed DISKCOPY.)

FILCHECK

- offline utility used to verify and manipulate the state of Nestar hard disks and diskettes.
- to run, boot the file server Apple, escape chaining to NFS by pressing **<esc>**, and X(ecute FILCHECK).
- validates all control sectors, directory sectors, and freespace descriptors.
- reports orphaned sectors and optionally adds them to freespace.
- recovers lost freespace.

HDISK

- offline utility used to sequence down a hard disk prior to turning off the disk.
- to run, boot the file server Apple, escape chaining to NFS by pressing **<esc>**, and X(ecute HDISK).
- reply to prompt with PU (power up) or PD (power down).
- power down the disk before turning off the Apple.

FILDEBUG

- offline utility used for disk maintenance.
- boot the file server Apple, escape chaining to NFS by pressing **<esc>**, and X(ecute FILDEBUG).
- input is prompted for via nested menus. See the System Manager's Manual for details.

SETPROFILE

- online system utility sets autoboot defaults for individual user stations.
- to run, X(ecute Pascal:SETPROFILE from the Pascal command level at any user station or run SETPROFILE under DOS 3.2.1 or DOS 3.3.
- defaults allowed: volume to be booted, automatic boot, Pascal and DOS access rights to booted volume, default library volume for Pascal and BASIC ROM load.
- if no profile is set for the station at which the SETPROFILE is executed, \$00 system profile defaults are used as prompts.

NFS I/O AND DEVICE ERRORS

Errors While Booting The File Server

Format: UNIT uu, PHASE pp, ERROR xx yy zz

uu is the unit number being booted (1, 2, 5, or 6)
pp is the phase during which the error occurred
xx is the hexadecimal primary I/O error code
yy,zz are the device error subcodes

Primary I/O Errors

Hex	Decimal	Meaning
\$01	1	Boot failure
\$03	3	Verify failure
\$05	5	Disk change not reset
\$07	7	Format error
\$09	9	Memory not present
\$0B	11	Bad drive number
\$0D	13	Controller not present
\$0F	15	Hard disk error
\$11	17	Format not allowed
\$80	128	Not ready
\$xx	xx	Other errors

Floppy Disk Device Subcodes

Subcode 1		
\$80	128	Disk not ready
\$40	64	Diskette is write protected
\$20	32	Write fault
\$10	16	Record not found
\$08	8	Data (CRC) error
\$04	4	Lost data/track zero
\$02	2	Index/Data request
\$01	1	Busy
Subcode 2		
\$80	128	Data request
\$40	64	Interrupt request
\$20	32	Disk changed
\$10	16	Two-sided

Hard Disk Device Subcodes

Subcode 1		
\$80	128	Drive error
\$40	64	Write error
\$20	32	Defective track
\$10	16	ID not found
\$08	8	ID error
\$04	4	Data error
\$02	2	Write guard error
\$01	1	Seek error
Subcode 2		
\$80	128	Track zero error
\$40	64	Diagnostic error
\$20	32	End of cylinder
\$10	16	Spin rate out of limits
\$08	8	Ready
\$04	4	Illegal command
\$02	2	Landing zone
\$01	1	Track zero